A NEWS BULLETIN FROM THE UNIVERSITY OF IDAHO, THE IDAHO DEPARTMENT OF LANDS—COMMUNITY FORESTRY PROGRAM AND THE IDAHO COMMUNITY FORESTRY ADVISORY COUNCIL

What great training opportunity is coming to Idaho? Check it out in the Calendar on page 3.

#### Coordinator's Column

### Planning for Healthier Cities Modeling the Value of Forest Canopy

Water is one of our most precious commodities in the West. As our state's population and cities continue to grow, so does the demand for water. Increased growth also impacts water quality, as more pollutants are generated and fewer vegetated surfaces are available to filter and absorb rainfall. The canopy of trees over our communities—on both private and public lands—can have a dramatic positive effect on both water quality and groundwater recharge. A project getting underway in north Idaho seeks to quantify just how valuable community forests are to these issues, and develop strategies to maximize that value.

With a grant from the USDA Forest Service, the Idaho Depart-

ment of Lands is partnering with local governments and others to assess the impacts of tree canopy over approximately 100 square miles of the developed and most rapidly developing areas that lie over the Rathdrum Prairie Aquifer in north Idaho. This area of Kootenai County, which includes the cities of Coeur d'Alene, Hayden, Post Falls and Rathdrum, is the 20<sup>th</sup> fastest growing area of the U.S., and the aquifer that lies below is the sole source for drinking water for more than a half million people. This study will utilize very high resolution satellite imagery, geographic information systems (GIS) and a software modeling program called CITYgreen.

CITYgreen is a GIS tool that quantifies canopy benefits—including water quality, stormwater mitigation, energy conservation, air quality, and carbon reduction using accepted research models. These assessments have been completed in a number of large metropolitan areas around the country

Approx. study area
Aquifer Boundary
Impervious surf.
Canopy Cover
Shrubs, herbaceous and other land cover

Ratindrum

Hayden
Lake
Coeur
d'Alene

Idaho's first CITYgreen study area. The results of this project will quantify the contribution of tree cover to the state's most precious resource – water – and help in planning for the inclusion of trees in the future.

and have established the significant value of forest canopy on a large scale. None, however, have been completed in the Inland Northwest. This project will demonstrate this technology as a site-specific planning tool across governmental boundaries and quantify the functional value of forests and canopy to water quality, especially in developing areas.

One of the tremendous benefits of using GIS is the ability to model future scenarios. For example, what would happen if we increased canopy cover from 10% to 30% in a specific area? What would be the added value? What will happen if we remove existing canopy while adding more impervious surfaces? How can we accommodate growth and maxi-

mize benefits from functional green infrastructure?

Through this type of modeling, site-specific canopy goals will be established and prioritized allowing the cities and county to target investments in planting, conservation, and infrastructure improvements for maximum benefit. The results of this project will be used as a template for other areas throughout Idaho and the region on assessment technologies and the quantifiable ecosystem benefits of trees and forests in our communities.

We will use this newsletter to keep you informed as the project progresses. We will also be happy to discuss with leaders in any Idaho community how this and other new technology tools can help you develop your community forestry program.

— David Stephenson Community Forestry Coordinator

#### Neighboring State Receives Legislative Support

The State of Washington has taken a giant leap on behalf of improved community forestry. The governor recently signed into law the Evergreen Communities Act. For the first time, state funds will be allocated to assist communities as they attempt to upgrade programs that enhance their tree resources and green infrastructure. Included in the work ahead are community tree inventories, model tree ordinances and management plans, and technical assistance from the state's Urban & Community Forestry Program staff. Staff will be assisted by a technical advisory committee and supported with an initial allocation of \$251,000.

# COMMUNITY TREES

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#### Cost/Benefit Tree Guides Now Available

The USDA Forest Service Pacific Southwest Research Center has published three research-based Tree Guides that document costs and benefits of community trees in all the climate regions of Idaho. They are: Interior West Tree Guide, which includes northwestern Idaho from Grangeville to the Canadian border, the Silver Valley, and the Snake River plain from Twin Falls to Ashton; the Temperate Interior West Tree Guide, which includes the Snake River Plain from Weiser to Twin Falls; and the Northern Mountain and Prairie Tree Guide, which includes the remainder of the state. These guides provide detailed information on tree benefits and values for many different landscape tree species within these climate zones, and strategies for increasing their benefits. You can access and print out these guides at www. fs.fed.us/psw/programs/cufr/ tree\_guides.php and then by clicking on the appropriate link. Hardcopies of the Temperate Interior West and the Northern Mountain and Prairie Guides are available at no charge by contacting the IDL Coeur d'Alene office. (See contact information in the masthead box.)

#### What happened to my blue spruce?

Tom Eckberg, IDL Forest Health Specialist

In the Fall 2007 issue of *Idaho Community Trees*, Jeff Fidgen provided information about the Douglas-fir tussock moth, an important pest of forest and ornamental trees in Idaho. In this issue we introduce the Engelmann spruce weevil (ESW), also known as the white pine weevil. The ESW is a type of beetle that can cause serious damage to the terminal growth of blue spruce and Engelmann spruce. Adults are approximately 1/4"-3/8" long and have a distinctive beak or "snout." Adults emerge from the base of trees in the spring and begin feeding on the previous year's terminals. Eggs are laid under the bark and developing larvae (grubs) tunnel inside the terminal.

As the terminal begins to elongate, the larval feeding causes the shoot to wilt and eventually turn brown. This deformed leader is referred to as a "shepherd's crook." Uninfested lateral branches will compete to assume dominance, which can lead to forked tops and bushy, unattractive ornamentals.

Engelmann spruce weevils can be difficult to manage with insecticides, and proper timing is critical for effective control. There are a limited number of insecticides registered for use by homeowners. Professional applicators have more options, and should make applications before adult feeding commences. Hand pruning and destroying infested leaders before adult emergence (at the first sign of wilting) can help reduce weevil numbers. Proper timing of treatments will vary depending on the location (elevation and latitude), but is usually in the spring after temperatures consistently reach 500 F. Remember to read and understand all pesticide label directions. For more information, go to www.na.fs.fed.us/spfo/pubs/fidls/wp\_weevil/weevil.htm.



Minnesota DNR Archive

Typical 'shepherd's crook' due to Engelmann spruce weevil feeding.

#### Help Get Trees Into Your Comprehensive Plan

Gerry Bates, Community Forestry Assistant

Many Idaho communities are updating their comprehensive plans. Does your city's plan have an Urban Forestry component? The Idaho Community Forestry Program's goal is to get cities to write language in their comprehensive plan that states the city's intent/desire to utilize trees for their functional value in addressing critical issues such as stormwater mitigation, air and water quality, and energy conservation. With the language in place, future proposals for community forestry, trees, and potential requirements or regulations, will contain budgets based on an approved platform. If it isn't in the comprehensive plan, it may not be considered. Statements about the need to create conditions for healthy forest growth, or that creating conditions favorable for a healthy community forest, should be considered during development or redevelopment of your plan.

Trees should be considered part of the necessary infrastructure of a community. Call it "green Infrastructure." As such, Idaho communities should consider adding language to:

- require developers to plant street trees in new subdivisions
- provide adequate rooting area by widening planting strips
- specify minimum shade requirements in commercial parking lots
- provide minimum landscape requirements for commercial developments.

All of this will help maximize the benefits that healthy trees offer to the community. Consider also that sidewalks, streets, sewers and other "gray infrastructure" components reach their peak value immediately after installation, but then begin a process of decline in both structure and value. Healthy trees, however, once planted, *increase* in value for years, as does the value of the benefits they provide. Nationally, trees offer \$1.84 in benefits for every dollar spent on their installation and maintenance. And, they do it every year!

#### Upcoming Certified Arborist (CA), Municipal Arborist (MA), Utility Arborist (UA), and Certified Tree Worker (CTW) written Exams

May 15—Orem, UT – evening exam<sup>1</sup> (CA)

June 7—Boise – morning exam<sup>2</sup> (CA, UA, CTW)

June 7—Twin Falls – morning exam<sup>2</sup> (CA, UA)

June 7—Lewiston<sup>2</sup> (CA, UA)

September 27—Pocatello – morning exam<sup>2</sup> (CA, UA)

<sup>1</sup>For information or to register, contact: Utah Chapter, International Society of Arboriculture at (801) 446-8229 or email: Lisa\_UCFC@Yahoo.com.

<sup>2</sup>For information or to register, contact: Pacific Northwest Chapter, International Society of Arboriculture at 503/874-8263 or 217-355-9411 or email: info@pnwisa.org.

#### Calendar - Spring & Summer 2008

#### May 5 - 9

**Green Infrastructure Workshop**, Radisson Downtown, Salt Lake City. Contact the Wasatch Front Regional Council at *www.wfrc.org/cms/index.php*, or call (801) 363-4230, ext. 108.

#### May 9

**Tree Climbing and Rigging Workshop**, Idaho Botanical Gardens, Boise. Presented by Vermeer Rocky Mountain and Sherrill Tree. Contact Roger Coffman to register at (208) 463-4573.

#### May 28 - 30

Nature and the Network – Building a New Framework for People and Nature to Work Together, Caribe Royale Hotel, Orlando, Florida. Contact: www.americanforests.org/conference.

#### June 5

**Oregon State Urban Forestry Conference** – 'Urban Forestry: A Tool for Sustainable Communities,' World Forestry Center, Portland. Contact PNW Chapter ISA (See box below).

#### June 26-30

**Root Disease Workshop**, Bonney Lake, WA. Contact PNW Chapter ISA (See box below).

#### **July 26 - 30**

International Society of Arboriculture (ISA) Annual Conference and Trade Show, St. Louis, MO. Contact www. isa-arbor.com/conference/default.aspx/.

#### **September 22 – 24**

Pacific Northwest Chapter ISA Annual Training Conference, Boise. More information at www.pnwisa. org/conference.html or call the PNW-ISA office at (503) 874-8263.

# Please Put This One on Your Calendar!

Fall is a lovely time of year in Boise and this year Idaho has the honor of hosting ISA's Pacific Northwest Chapter Annual Training Conference. Join us for golf Saturday, Sept. 20 and Tree Climbing Championships on Sunday, Sept. 21, and then stay for the entire conference. The program will feature trade exhibits, inspiring and informative speakers, delicious meals, and great entertainment. Steve Sillett of *The Wild Trees* fame will keynote the Tuesday session. CEU's for ISA arborist certification will also be available. Contact information is above, or call the Boise Urban Forestry office at 208-384-4083. This is a great opportunity to send representatives from communities large and small throughout Idaho – don't miss it!



## University of Idaho

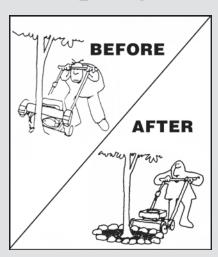
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# Tree tip

## **Spring Training for All Outdoor Workers**



Anyone who works on streets or in parks needs to be trained in how to work with or around trees. Considerable damage is done every year because time is not provided for this important part of supervision. Mowers, heavy equipment operators, ballpark workers and others would benefit from a briefing on how to protect tree resources as they go about their various duties.

Personnel assigned to tree work need even more. Some suggestions:

- Make this and back issues of Community Trees available
- Create a reference library of Tree City USA Bulletins
- Hire a consulting arborist to provide a workshop on tree care
- Encourage membership in the International Society of Arboriculture and obtaining arborist certification
- Sponsor attendance at the Annual ISA Training Conference (See Calendar)